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09/836,209	04/16/2001	Shao-Tsu Kung	CEIP0024USA	7409

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NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)

P.O. BOX 506

MERRIFIELD, VA 22116

EXAMINER

BRANT, DMITRY

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/836,209

Applicant(s)

KUNG ET AL.

Examiner

Dmitry Brant

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02/02/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Response to Amendment**

1. In response to the Office Action mailed October 5, 2003, applicant has submitted an Amendment, filed February 2, 2004, changing the title and amending the Specification to correct informalities to overcome examiner's objections, amending claims 1, and arguing to traverse the rejection of claim 1.

While this has led to withdrawal of the objections to the Specification, the 35 U.S.C. 103 claim rejection remains for reasons given below under Response to Arguments.

### **Response to Arguments**

2. Applicant's arguments have been fully considered and found persuasive. As a result, this action is made Non-Final.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being obvious over Oberteuffer et al. (6,438,523), in view of Yong et al. (6,064,959).

Oberteuffer et al. discloses:

- utilizing a speech recognition algorithm to generate a first list according to verbal input ("several text strings, letters, characters') - (elem. 204, FIG. 2, Col. 5, lines 3-6)
- utilizing a character recognition algorithm to generate a second list according to handwritten input - (Col. 5, lines 6-8)
- generating a third list that is an intersection of characters common to the first list and the second list - (Col. 5, lines 8-11)

Also, Oberteuffer et al. disclose an embodiment for using both verbal and handwritten inputs simultaneously. (FIG.3 and Col. 5, lines 12-23)

Oberteuffer et al. do not disclose "presenting the third list" to a user.

Young et al. teaches a disclosing a list of words to the user and permitting the user to choose the correct word from the list (Col. 1, lines 50-58)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Oberteuffer et al. as taught by Young et al. in order to present the user with a list of possible choices for the recognized word, because it would improve the accuracy of the speech recognition process. Here, the user chooses the final candidate for the recognized word from a list of possible words and therefore avoids the problem of computer incorrectly choosing the final version of the word based on incomplete information.

5. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being obvious over Oberteuffer et al. and Young et al., and further in view of Larkey (5,127,055) and Carman, II (5,454,046).

As per claim 2, Oberteuffer et al. disclose a system comprised of a speech recognition engine and a cursive handwriting recognition engine (elems. 108, 110, FIG. 1).

Oberteuffer et al. and Young et al. do not disclose a "database from which characters are selected by the speech recognition algorithm and the character recognition algorithm to fill the first list and the second list, respectively".

Larkey teaches a speech recognition system that "processes and analyzes the incoming speech and compares the incoming speech to reference patterns stored in a reference pattern storage memory." (Column 4, lines 13-16)

Carman, II teaches a handwriting recognition system that has "a user specific recognition database for storing data pairs" (48, See FIG. 2 and Column 2, lines 41-43)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the recognition engines of Oberteuffer et al. and Young et al. to use the databases for word storage, as taught by Larkey and Carman, II. The motivation for doing so would have been the improved vocabulary capacity of the speech and handwriting recognition systems.

As per claims 3 and 8, Oberteuffer et al. disclose a system comprised of speech recognition engine and cursive handwriting recognition engine (elems. 108, 110, FIG. 1)

Oberteuffer et al. and Young et al. do not disclose a “adding a first character to the database, the first character generated by the user using an auxiliary input method”.

Larkey teaches a speech recognition system that “that features dynamically adding new reference patterns to the stored reference patterns during this speech recognition process in response to the recognition correction actions and providing such additional reference patterns for use in recognizing new unknown speech input utterances.” (Column 2, lines 25-30)

Carman, II teaches a system that “queries the user for textual data and then stores a new data pair “, “thus improving subsequent recognition by virtue of an augmented user specific sample recognition database file” (Column 2, line 62 – Column 63, line 6). Carman, II also teaches the use of keyboard (28, FIG. 1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the recognition engines of Oberteuffer et al. and Young et al. to use databases that can store additional user input, as taught by Larkey and Carman, II. The motivation for doing so would have been an ability to “train” the recognition system in Oberteuffer et al. to understand new words or characters. Additionally, at the time of the invention it would have been obvious to a person of ordinary skill in the art that if initially the vocabulary set stored in the database was empty, the users would have to “train” the recognition system by adding new words/characters to the empty database through keyboard, as taught by Carman, until the database contained sufficiently large number of words/characters for the proper operation of the recognition system.

As for claims 4-5, Oberteuffer et al. disclose a system comprised of speech recognition engine. (108, FIG. 1)

Oberteuffer et al. and Young et al. do not disclose a system where "speech recognition algorithm utilizes a first standard for speech recognition, and adapts the first standard to verbal characteristics of the user"

Oberteuffer et al. also do not disclose a system where "characteristics of the user corresponding to the first character are added to the database"

Larkey teaches a speech recognition system that "that features dynamically adding new reference patterns to the stored reference patterns during this speech recognition process in response to the recognition correction actions and providing such additional reference patterns for use in recognizing new unknown speech input utterances." (Column 2, lines 25-30)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the speech recognition engine of Oberteuffer et al. and Young et al. to use new input from the user as a standard and to store it in the database for future reference, as taught by Larkey. The motivation for doing so would have been an ability to "train" the speech recognition system to "learn" new characters and words, thus adjusting to the idiosyncrasies of each user.

As for claims 6-7, Oberteuffer et al. disclose a system comprised of handwriting recognition engine. (110, FIG. 1)

Oberteuffer et al. and Young et al. do not disclose a system where “the character recognition algorithm utilizes a second standard for character recognition, and adapts the second standard to handwriting characteristics of the user.”

Oberteuffer et al. and Young et al. also do not disclose a system where “the handwriting characteristics of the user corresponding to the first character are added to the database.”

Carman, II teaches a system that “queries the user for textual data and then stores a new data pair “, “thus improving subsequent recognition by virtue of an augmented user specific sample recognition database file” (Column 2, line 62 – Column 63, line 6).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the handwriting recognition engine of Oberteuffer et al. and Young et al. to use new input from the user as a standard and to store it in the database for future reference, as recited by Carman II. The motivation for doing so would have been an ability to “train” the handwriting recognition system to “learn” new characters and words, thus adjusting to the idiosyncrasies of each user.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Tadano et al. (6, 542,090) teaches complimentary input apparatus combining speech and handwritten character recognition.

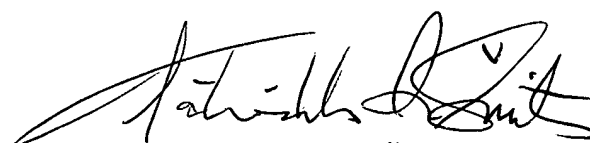
Lindhom et al. (6,694,295) teaches combining text and speech recognition inputs.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Brant whose telephone number is (703) 305-8954. The examiner can normally be reached on Mon. - Fri. (8:30am - 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (703) 306-3011. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Tech Center 2600 receptionist whose telephone number is (703) 305- 4700.

DB  
3/31/04



TĀLIVALDIS IVARS ŠMITS  
PRIMARY EXAMINER